

What is claimed is:

1. L-Lysine-producing corynebacteria with an enhanced pyc gene, in which additionally genes chosen from the group consisting of the dapA gene, the lysC gene, the lysE gene and the dapB gene, individually or together, are enhanced.
2. Corynebacteria as claimed in claim 1 in which the dapA gene and optionally the dapB gene are enhanced.
3. Corynebacteria as claimed in claim 1 in which the dapA gene, the dapB gene and the lysE gene are enhanced.
4. Corynebacteria as claimed in claim 1 which contain the MC20 or MA16 mutations of the dapA promoter shown in SEQ ID No. 5 and SEQ ID No. 6.
5. Corynebacteria as claimed in claim 1 in which the dapB gene, which additionally contains the 5' end upstream from the translation start of this gene, shown in SEQ ID No. 1, is enhanced.
6. Isolated DNA originating from Corynebacterium and capable of replication in corynebacteria, which contains at least the nucleotide sequence additionally containing the 5' end upstream from the translation region of the dapB gene, shown in SEQ ID No. 1.
7. The DNA as claimed in claim 6 that is recombinant.
8. The DNA as claimed in claim 5, with the nucleotide sequence shown in SEQ ID No. 1, that is capable of replication.

- 5 9. A process for the preparation of L-lysine by the fermentation of corynebacteria with an enhanced pyc gene, wherein said corynebacteria used are those in which nucleotide sequences coding for genes chosen from the group consisting of dapA, lysC, lysE and dapB, individually or together, are enhanced.
- 10 10. The process as claimed in claim 9, wherein said corynebacteria used are those in which the dapA gene and optionally simultaneously the lysC gene are enhanced.
11. The process as claimed in claim 9, wherein said corynebacteria used are those in which the dapA gene, the dapB gene and the lysE gene are simultaneously enhanced.
- 15 12. The process as claimed in claim 9 wherein a strain of said corynebacteria transformed with one or more plasmid vectors is used, the plasmid vector(s) carrying the nucleotide sequences for one or more of the genes to be enhanced.
- 20 13. The process as claimed in claim 9 wherein a strain of said corynebacteria transformed with one or more plasmid vectors is used and the plasmid vector carries the nucleotide sequences which code for one or more genes chosen from the group consisting of the pyc, dapA, dapB and/or lysE genes.
- 25 14. The process as claimed in one of claims 9-13, wherein bacteria of the species *Corynebacterium glutamicum* are used.
- 30 15. The process for the preparation of L-lysine by fermentation as claimed in one of claims 9-13, comprising the following steps:

- a) fermentation of the L-lysine-producing corynebacteria in which the genes described are enhanced,
- b) enrichment of L-lysine in the medium or in the cells of the corynebacteria, and
- c) isolation of the L-lysine.

16. Escherichia coli K-12 strain DH5 α /pEC7lysEpyc, deposited as DSM12872.

17. Escherichia coli K-12 strain DH5 α /pEC7dapBlyse, deposited as DSM12875.

18. Escherichia coli K-12 strain DH5 α /pEC7dapBpyc, deposited as DSM12873.

19. Corynebacterium glutamicum strain DSM5715aecD::dapA(MA16), deposited as DSM12867.

20. Corynebacterium glutamicum strain DSM5715aecD::dapA(MC20), deposited as DSM12868.

21. Escherichia coli K-12 strain DH5 α /pEC7lysEdapBpyc, deposited as DSM12874.

22. DNA capable of replication, with the nucleotide sequence MC20 shown in SEQ ID No. 5.

23. DNA capable of replication, with the nucleotide sequence MA16 shown in SEQ ID No. 6.

24. The process as claimed in claim 9, wherein said corynebacteria used are those in which nucleotide sequences coding for genes chosen from the group consisting of dapA, lysC, lyse and dapB, individually or together, are over-expressed.

25. The process as claimed in claim 9, wherein said corynebacteria used are those in which the dapA gene and optionally simultaneously the lysC gene are over-expressed.
- 5 26. The process as claimed in claim 9, wherein said corynebacteria used are those in which the dapA gene, the dapB gene and the lysE gene are simultaneously over-expressed.

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